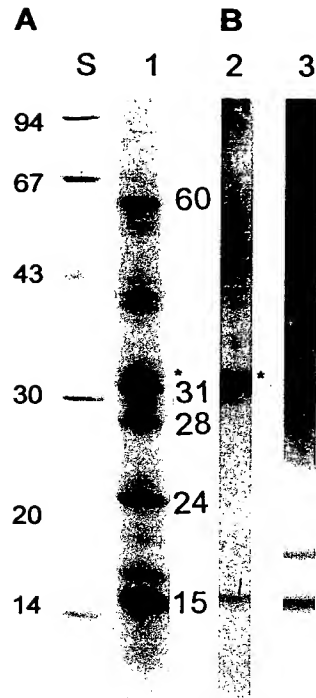


Appl. No. 09/864,291; Group Art Unit: To Be Assigned
 Dkt. No. 1669.0050001/LAG/EEF/RGM; Batch No.: N/A
 Inventors: OKO et al.; Tel: 202/371-2600
 Title: PT32 Sperm Protein, Sperm c-Yes, Oocyte
 Cytoplasmic c-Yes, and Uses Thereof

1/15

FIG 1



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Appl. No. 09/864,291; Group Art Unit: To Be Assigned
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 Title: PT32 Sperm Protein, Sperm c-Yes, Oocyte
 Cytoplasmic c-Yes, and Uses Thereof

2/15

FIG 2A

(SEQ ID NO:4)

1 CGGCACGAGGGGCGGCAGGAGGGGGCCTG¹GGCAGG
 36 ATG GCA GTG AAC CAG AGC CAC ACC GAG AGC CGT CGT GGG GCC CTC ATC CCC TCT GGC GAA
 1 M A V N Q S H T E S R R G A L I P S G E
 96 AGT GTC TTG AAG CAG TGT GAG GAT GTG GAC CTC TGC TTC CTA CAG AAA CCA GTG GAA TCC
 21 S V L K Q C E D V D L C F L Q K P V E S
 156 TAT CTC TTT AAT GGC ACA AAG AAA GGA ACG TTG TTT CTC ACT TCA TAC CGG GTG GTC TTC
 41 Y L F N G T K K G T L F L ~~0~~T S Y R V V F
 216 GTG ACT TCA CAC TTA GTC AAT GAC CCC ATG CTT TCT TTT ATG ATG CCG TTT GGC CTG ATG
 61 V T S H L V N D P M L S F M M P F G L M
 276 AGT GAC TGC ACC ATT GAA CAA CCA ATT TTT GCC CCC AAC TAC ATT AAA GGA ACC ATT CAG
 81 S D C T I E Q P I F A P N Y I K G T I Q
 336 GCA GCT CCA GGT GGT GGC TGG GAA GGA CAA GCT GTT TTT AAG TTA TCC TTC AGG AAA GGA
 101 A A P G G G W E G Q A V F K L S F R K G
 396 GGT GCC ATC GAA TTT GCC CAA CTG ATG GTA AAA GCT GCC TCT GCT GCT GCC AGA GGA ATT
 121 G A I E F A Q L M V K A A S A A A R G I
 456 CCA CTT GGA AGT GTA AAT TAC TGG TTC GAC ACT TCA GGA CTG TAC ATA ATT ACT GTC CCA
 141 P L G S V N Y W F D T S G L Y I I T V P

T0600T" F6249860

Appl. No. 09/864,291; Group Art Unit: To Be Assigned
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 Cytoplasmic c-Yes, and Uses Thereof

3/15

FIG 2B

516 GGG GCT GCA GTG TGC TCC TCA CAG ACA CCT TGT CCA GCA TAT CCA ATT GTG ATC TAT GGA
 161 G A A V C S S Q T P C P A Y P I V I (Y G

576 CCC CCA CCA CCA GGA TAT ACA GTC CAA CCA GGG GAA TAT GGA ACT CCA CCA GAA GGA TAT
 181 P P P P G Y) T V Q P G E (Y G T P P E G) (Y
 A A A A

636 GGA GCC CAA CCA GGG GGA TAT GGA GCC CCA CCT ATG GGA TAT GGA GCC CCG CCT GTG GGA
 201 G A Q P G G) (Y G A P P M G) (Y G A P P V G)

696 TAT GGA GTC CCA CCT GGG GGA TAT GGA GTC CCA CCT GGG GGA TAT GGA GTC CCA CCT GGG
 221 (Y G V P P G G) (Y G V P P G G) (Y G V P P G

756 GGA TAT GGA GCC CCA CCT GGG GGA TAT GGA GTC CCA CCT GGG GGA TAT GGT GCC CCA CCT
 241 G) (Y G A P P G G) (Y G V P P G G) (Y G A P P

816 GGG GGA TAT GGA GCC CCA CCT GCA GGA TAT GGA GCC CCA CCA GCT GGA AAT GAA GCC CTA
 261 G G) (Y G A P P A G) (Y G A P P A G) ON E A L

876 CCC CCT GCA TAT GAA GCT CCA TCT GCT GGA AAT ACA GCT GCC TCT CAC AGA TCT ATG ACA
 281 P P A Y E A P S A G N T A A S H R S M T
 A A A A

936 GCT CAG CAG GAG ACT TCT CTT CCC ACT ACC TCA TCT TCT TAG
 301 A Q Q E T S L P T T S S S @

GTCCATTTACCACTTCTCAGAGT²TAAACCTTGAAGACTCACCAAGCAAAGGGCACCCCTAAAACTGAAGTCACAGTAAGAAGG
 AAGACCCAGGTGCCAGTGGTAGGAGGTGTTGCTGTGCACCGAGTGGTCTGATCTTCTCCACACACCTGTGAGGTCTGTGCC
 TCAAAACAGATGAAGGTGAGAAGACGACTCCTGTTCTCAAGGAAGGAAGATGCTTGAAAACAGACTGCAAGCCAACTAGAGAG
 AGAGAGATGTGAAGTGGCACATAAACAGCTTGGGGATGGAGACTGACTCTCTTTAGAAAACAGGCCTTCTCCCTGCCTCTGA
 CCTGAGCAGAAAAAGAGAAATCGCTGGAACCAAGAGCTAGGGTCACCTGCTTAGACGCCCTCGATTAAAGCCTGCTTGCTGT
 TGCATAAAAAAAAAAAAAAA(1413)

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FIG 3A

	10	20	30	40	50	60
PT32	MAVNQSHTESRRGALIPSGESVLKQCEDVDLCFLQKPVESYLFNGTKKGTLFELTSYRVVF					
	:::::::::: :::: . . ::: : .				: :::::::::::::: ::::	
WBP2	MALNKNHSEGG-GVIVNNTESILMSYDHVELTFNDMKNVPEAFKGTKKGTVYLTPYRVIF					
	10	20	30	40	50	
	70	80	90	100	110	120
PT32	VTSHLVNDPMLSFMMPFGLMSDCTIEQPIFAPNYIKGTIQAAPGGGWEGQA VFKLSFRKG					
	... :	: :::::::::: ::::	: :::::	: ::::	: .. :::::::::: ::::	: :::: :
WBP2	LSKG--KDAMQSFMMPFYLMKDCEIKQPVGANFIKGIVKAEAGGGWEGSASYKLFTTAG					
	60	70	80	90	100	110
	130	140	150	160	170	
PT32	GATIEFAQLMVKAASAAARG-IPLGSVNYWFDTSGLYIITVPGAAVCSSQTFC ----313					
	: :::::	: :::::	: :::	: : . : . : :	: .. :	: : ::
WBP2	GATIEFGQRMQLVASQASRGEVPNGAYGYPYMPSGAYVFPPP---VANGMYPC ----261					
	120	130	140	150	160	

(SEQ ID NO:19)

(SEQ ID NO:17)

[illegible]

Appl. No. 09/864,291; Group Art Unit: To Be Assigned
 Dkt. No. 1669.0050001/JAG/EEF/RGM; Batch No.: N/A
 Inventors: OKO et al.; Tel: 202/371-2600
 Title: PT32 Sperm Protein, Sperm c-Yes, Oocyte
 Cytoplasmic c-Yes, and Uses Thereof

5/15

FIG 3B

```

      10      20      30      40      50      60
PT32 MAVNQSHTESRRGALIPSGESVLKQCEDVLCFLQKPVESYLFNGTKKGTFLTYSYRVVF
      ..... : : : : : : : : : : : : : : : : : : : : : : : : : : : :
WBPM MAVNQNHVTDRRWAAIPHGESLLKKCSEVDLSFPQSPPGSNLFSGTRGALFLTYSYRVIF
      10      20      30      40      50      60

      70      80      90      100     110     120
PT32 VTSHLVNDPMLSFMMPFGLMSDCTIEQPIFAPNYIKGTIQAAPGGGWEGQAVFKLSFRKG
      .... : : : : : : : : : : : : : : : : : : : : : : : : : : : :
WBPM VTSRADNDPMFSFTMPFHLMNCTVEQPIFGANYIKGTIQAAPDGGWEGSATFKIVFRKG
      70      80      90      100     110     120

      130     140     150     160     170     180
PT32 GAIEFAQLMVKAASAAARGIPLGSVNYWFDTSGLYIITVPGAAVCSSQTPCPAYPIVIYG
      ..... : : : : : : : : : : : : : : : : : : : : : : : : : : : :
WBPM GAIDFAQLMAKAASAAQGVPLRVASFWMGPLGIYVIT--GDR--NMYAP-QAYQVA-YG
      130     140     150     160     170

      190     200     210     220
PT32 PPPPGYTVQPGEGYGTPEGGYGAQPGGYGAPPMGYGAPPVGYGV-PPG-----
      : : : : : : : : : : : : : : : : : : : : : : : : : : : :
WBPM APPAGYGASPVGYGVPSAGYGAPPAGYGAPPVGYVAPSPGYDVLPPGYGAVRYGSPPLY
      180     190     200     210     220     230

      230     240     250     260
PT32 -----GYGVPPGGYGVPPGGYGAPPGGYGV-----PGGYGAPPGGYGAPP
      : : : : : : : : : : : : : : : : : : : : : : : : : : : :
WBPM VATPMGYGVPPPGYGPPVRYGSPPPGYEAPTMEYGAQPPRYGTTMGSGSPPPRYEAPP
      240     250     260     270     280     290

      270     280     290     300     310
PT32 AGYGAPPAGNEALPP-----AYEAPSAGNTAASHRSMTAQ---ETSLPTSSS----
      : : : : : : : : : : : : : : : : : : : : : : : : : : : :
WBPM MGYGTPPSGRESIPPGSRATSVAQEAPPAGSEAGHPMSVAVQNPEFQASFPSTSSSQVHS
      300     310     320     330     340     350

```

PT32 ----- (SEQ ID NO:5)

WBPM PRSKM (SEQ ID NO:18)

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FIG 4A

200 210 220 230 240 250

PT32 **TPPEGYGAQPGGYGAPPMCYGAPPVGYGVPPGGYGVPPGGYGAPPGGYGVPPG**
 .. ::::: : ::::: : : ::::: ::::: ::::: ::::: ::::: :::::

WBPH **APPAGYGAQPVGNEGPPVGYRASPVRYGAPPLGYGAPPAGYGAPPLGYGAPPLGYGTPL**
 90 100 110 120 130 140

260 270 280 290 300 310
PT32 **GYGAPPGGYGAPPAGYGAPPAGNEALPPAYEAPSAGNTAASHRSMTAQQETS LPTTSSS**
 ::::: ::::: : : : : : : : : : :
WBPH **GYGAPPLGYGAPPAGNEGPPAGYRASPA GSGARPQESTAA---QAPENEASLP SASSS**
 150 160 170 180 190

PT32 ----- (SEQ ID NO:9)

WBPH QDKEDDSGQPF~~LR~~SAFQCLLECD~~Y~~LIVR (SEQ ID NO:10)
200 210 220

[illegible]

Appl. No. 09/864,291; Group Art Unit: To Be Assigned
Dkt. No. 1669,0050001/JAG/EEF/RGM; Batch No.: N/A
Inventors: OKO et al.; Tel: 202/371-2600
Title: PT32 Sperm Protein, Sperm c-Yes, Oocyte
Cytoplasmic c-Yes, and Uses Thereof

7/15

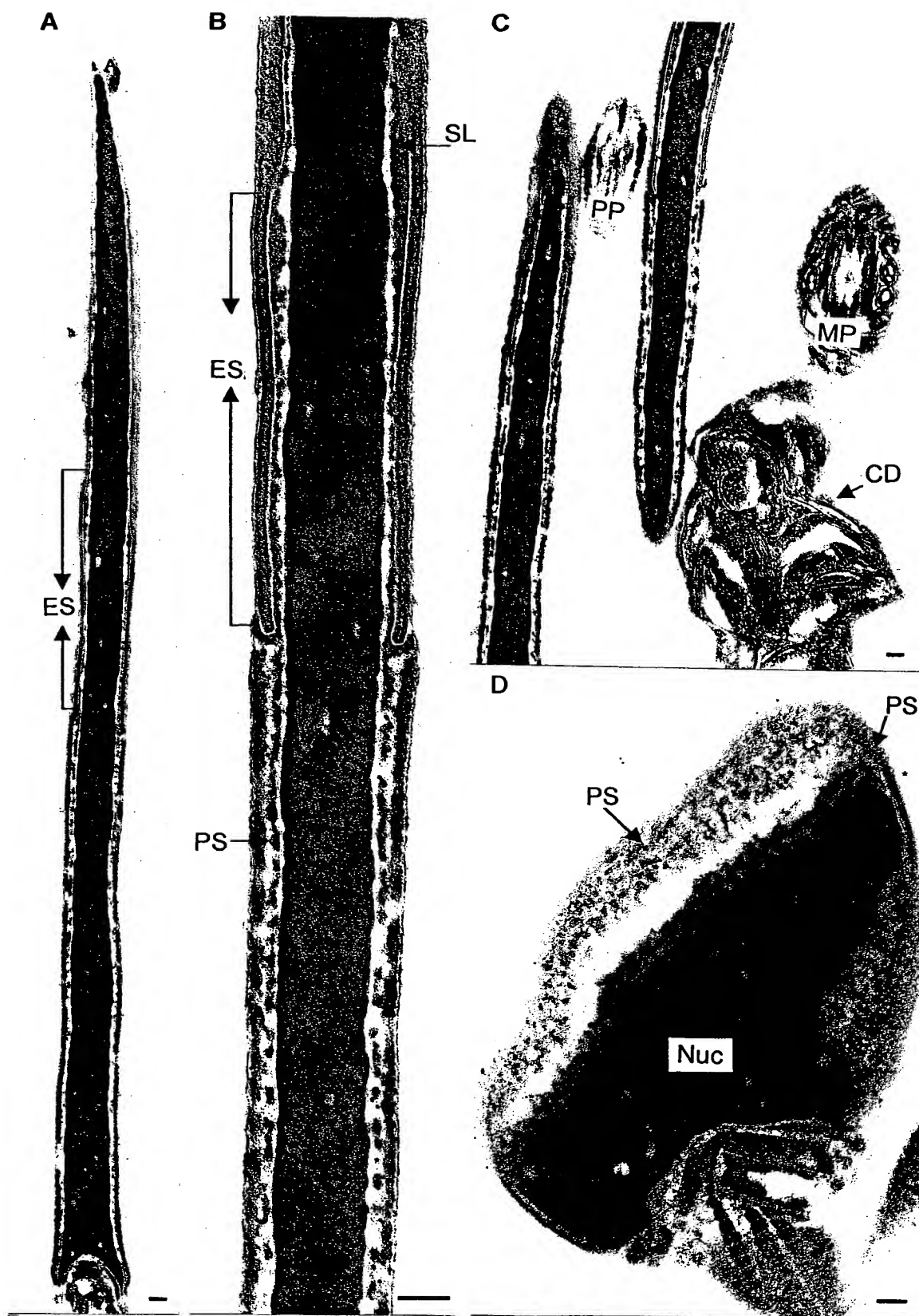
FIG 4B

(SEQ ID NO:11) 1 ▶ ATGCCATTGATCTGATGACGAACCTCACTGTTGAACAACCAGTATTTGCTGCAAACCTC
(SEQ ID NO:12) 1 M P F D L M T N L T V E Q P V F A A N F
61 ATTAAGGGAAGTATTCAGGCAGCTCCATATGGTGGCTGGGAAGGACAAGCTACTTTTAAA
21 I K G T I Q A A P Y G G W E G Q A T F K
121 TTAGTCTTCAGAAATGGAGATGCCATTGAATTTGCCAGTTGATGGTGAAAGCTGCCTCT
41 L V F R N G D A I E F A Q L M V K A A S
181 GCTGTGCCCCGAGGATTTCCACTTAGAACCTTAAATGACTGGTTCAGCTCTATGGGAATT
61 A V A R G F P L R T L N D W F S S M G I
241 TATGTAATTACTGGGGAAGGAATATGTGCACTCCACAGATGCCTTGTTCAGTTATTGTC
81 Y V I T G E G N M C T P Q M P C S V I V
301 TATGGGGCCCCACCTGCAGGATATGGAGCCCCACCTCCCGGATACGGAGCCCCACCTGCA
101 [Y G A P P A G][Y G A P P P G][Y G A P P A
361 GGATATGGAGCCCAACCCGTAGGAAATGAAGGCCCGCTGTGGGATACAGAGCCTCACCT
121 G] Y G A Q P V G N E G P P V G Y R A S P
421 GTGGATATGGAGCCCCACCTCTTGATACGGAGCCCCACCTGCAGGATATGGAGCCCCA
141 V R [Y G A P P L G][Y G A P P A G][Y G A P
481 CCTCTAGGATATGGAGCCCCACCTCTTGATATGGAACCCACCTCTCGGATATGGAGCC
161 P L G][Y G A P P L G][Y G T P P L G][Y G A
541 CCACCTCTCGGATATGGAGCCCCACCTGCAGGAAATGAAGGCCCGCTGCGGGATACAGA
181 P P L G][Y G A P P A G] N E G P P A G Y R
601 GCCTCACCTGCTGGATCAGGAGCCAGGCCTCAGGAATCTACAGCAGCCCAGGCTCCTGAA
201 A S P A G S G A R P Q E S T A A Q A P E
661 AACGAGGCTTCTCTCCCTCTGCCTCCTCTCTCAGGTCCATTCTTAACCTTCTAAGATG
221 N E A S L P S A S S S Q V H S ●●●
TAAACCTTGAAGACTCACCAAGCAAAGAGGTACCCTAAAATTGAAGTCAGGATAAGGAGG
ACGACTCAGCTTAGAGTCATTGATTGATCTGCATTGTGAAAATTAGGAAACCAGATGCTC
CCATGTTCTCAAGGACGACCTTTCTTAAGGAAGTCAGTACGTGGCAACAGTGATGAGAG
GAAGAGGAGAGACTCAACCAACTAGAGCAGGGATAAGGTTTCCCTTGTTTCAGCTTTTC
AGTGTCTGCTGGAATGTGATGATTACCTCATTGTCAGGTAG 42

09864291.100901

8/15

FIG 5

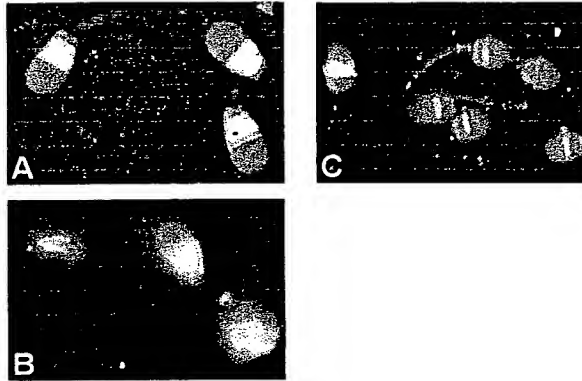


FOOT-16249860

Appl. No. 09/864,291; Group Art Unit: To Be Assigned
 Dkt. No. 1669.0050001/JAG/EEF/RGM; Batch No.: N/A
 Inventors: OKO et al.; Tel: 202/371-2600
 Title: PT32 Sperm Protein, Sperm c-Yes, Oocyte
 Cytoplasmic c-Yes, and Uses Thereof

9/15

FIG 6

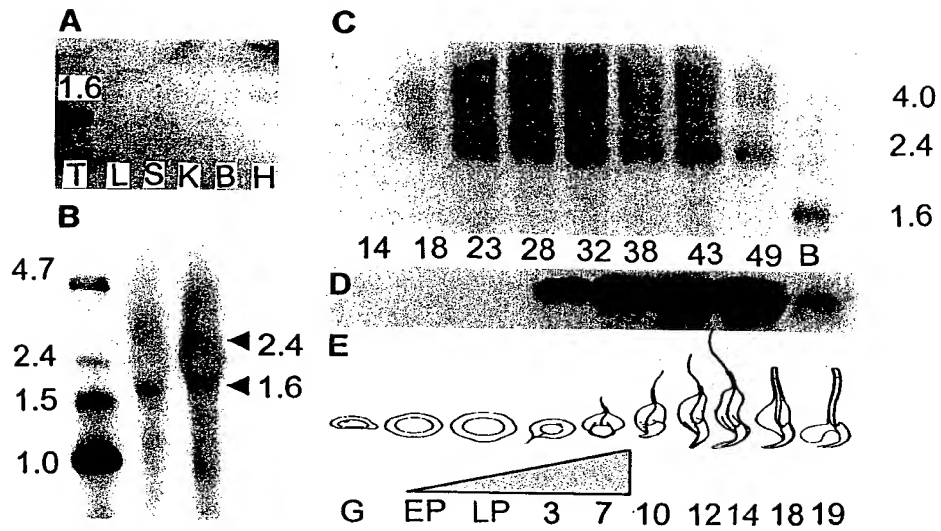


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Appl. 09/864,291; Group Art Unit: To Be Assigned
 Dkt. No. 1669,0050001/LAG/EEF/RGM; Batch No.: N/A
 Inventors: OKO et al.; Tel: 202/371-2600
 Title: PT32 Sperm Protein, Sperm c-Yes, Oocyte
 Cytoplasmic c-Yes, and Uses Thereof

10/15

FIG 7



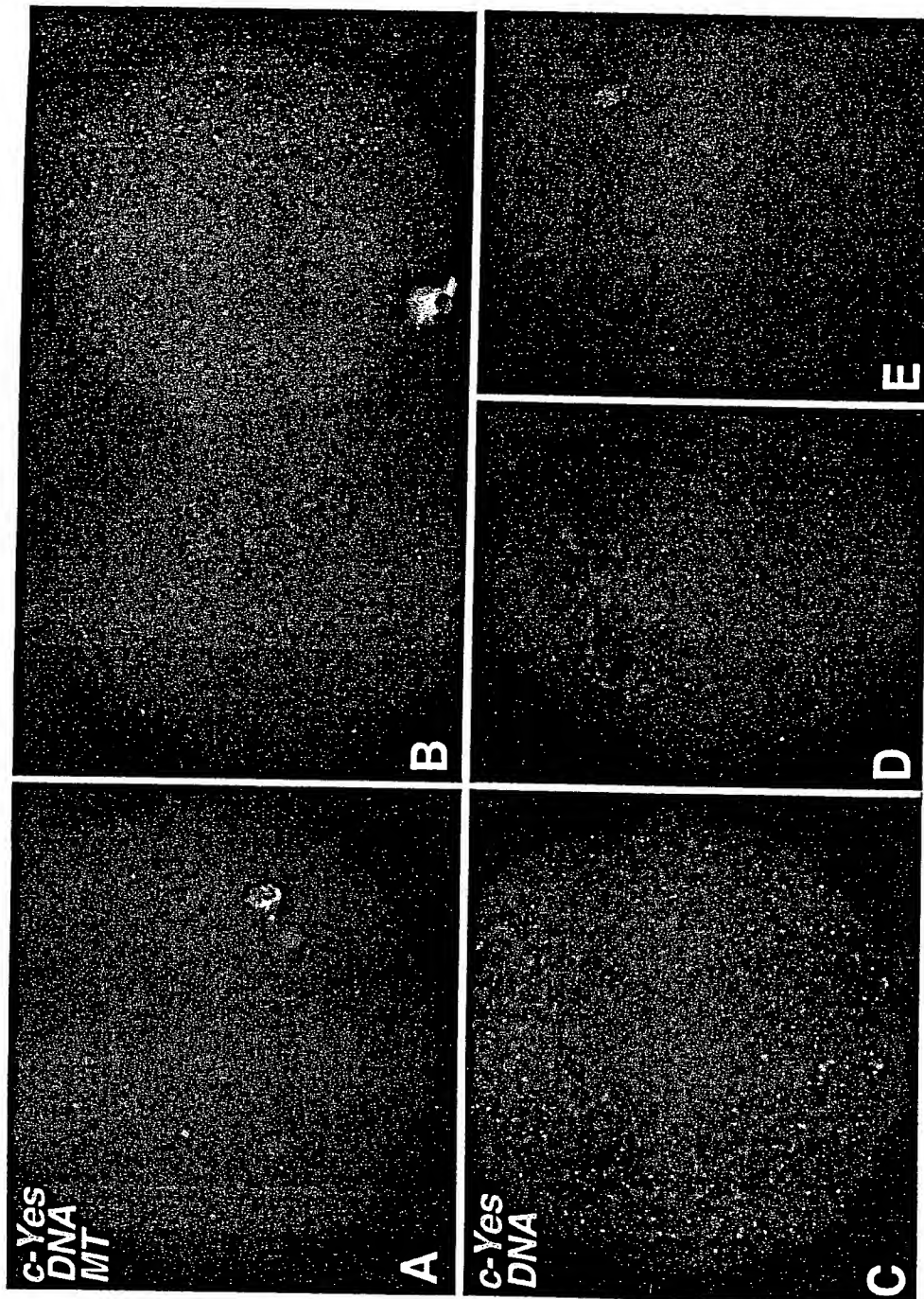
09864291-100901

Appl. No. 09/864,291; Group Art Unit: To Be Assigned
 Dkt. No. 1669.0050001/JAG/EEF/RGM; Batch No.: N/A
 Inventors: OKO et al.; Tel: 202/371-2600
 Title: PT32 Sperm Protein, Sperm c-Yes, Oocyte
 Cytoplasmic c-Yes, and Uses Thereof

11/15

FOOT " 16249860

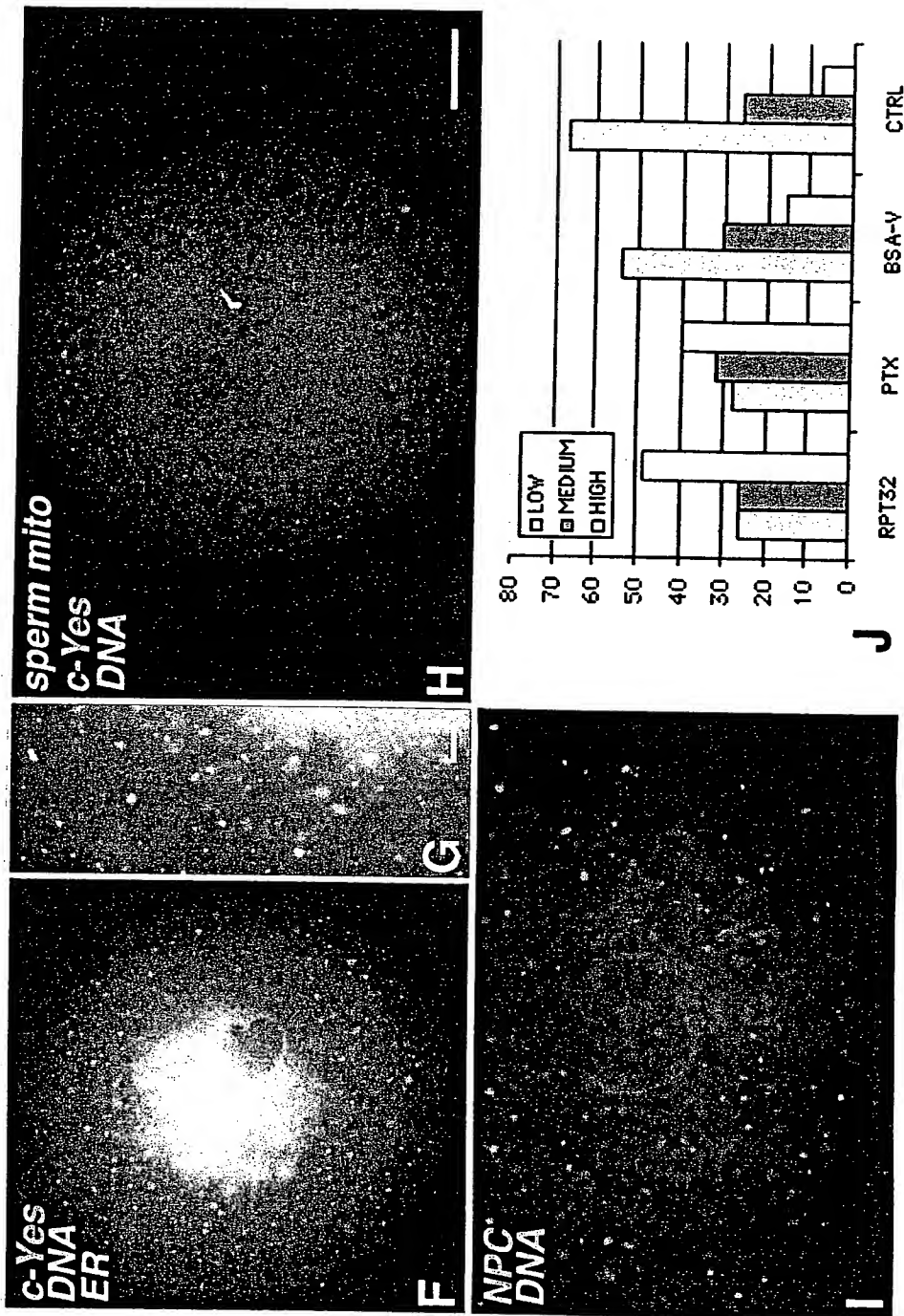
FIG 8 - I



Appl. No. 09/864,291; Group Art Unit: To Be Assigned
 Dkt. No. 1669.0050001/JAG/EEF/RGM; Batch No.: N/A
 Inventors: OKO et al.; Tel: 202/371-2600
 Title: PT32 Sperm Protein, Sperm c-Yes, Oocyte
 Cytoplasmic c-Yes, and Uses Thereof

12/15

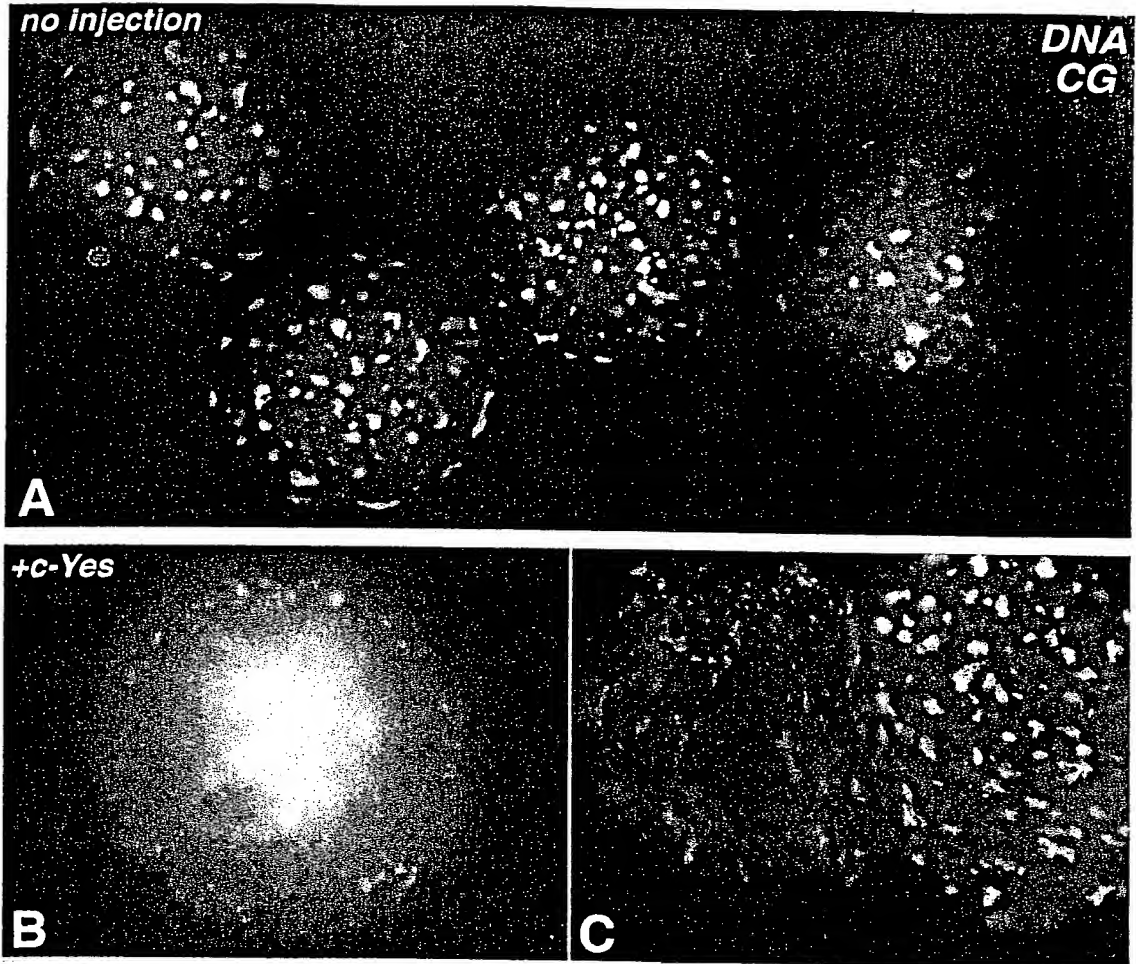
FIG 8 - II



Appl. No. 09/864,291; Group Art Unit: To Be Assigned
 Dkt. No. 1669.0050001/JAG/EEF/RGM; Batch No.: N/A
 Inventors: OKO et al.; Tel: 202/371-2600
 Title: PT32 Sperm Protein, Sperm c-Yes, Oocyte
 Cytoplasmic c-Yes, and Uses Thereof

13/15

FIG 9 - I

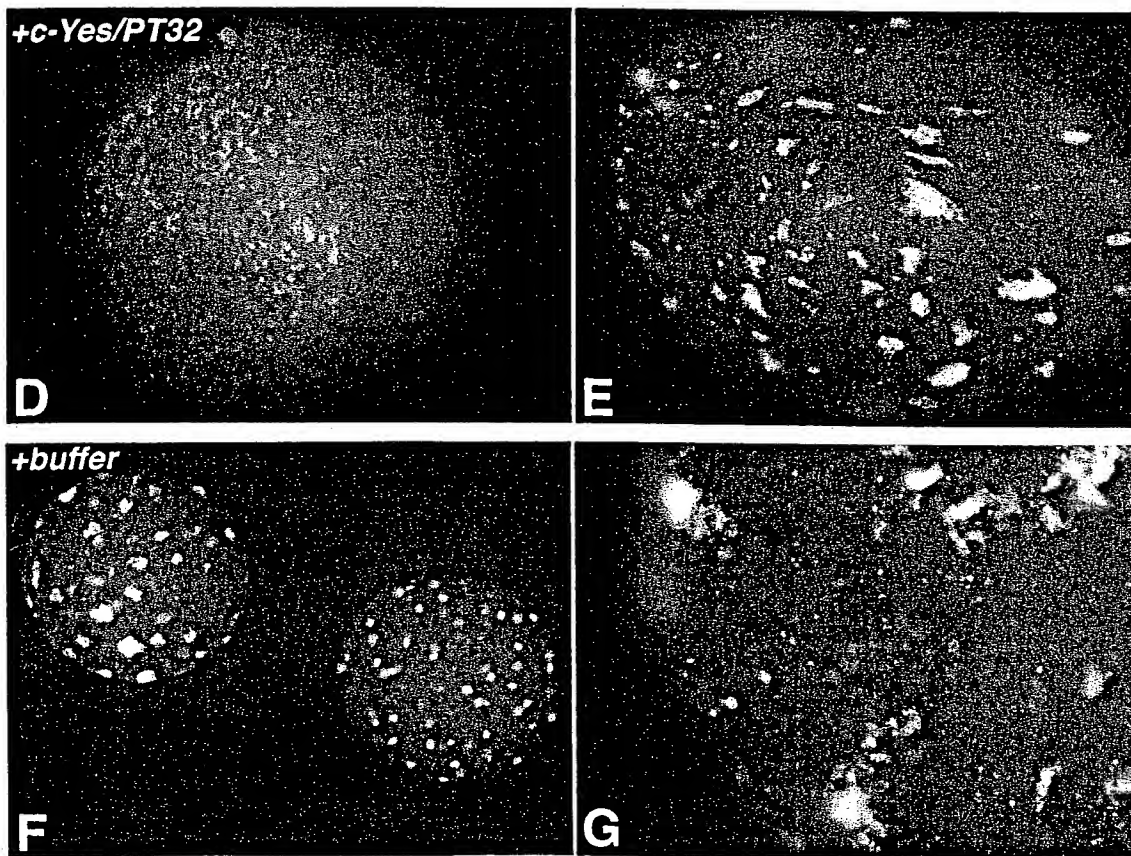


00600T 16249860

Appl. No. 09/864,291; Group Art Unit: To Be Assigned
 Dkt. No. 1669.0050001/JAG/EEF/RGM; Batch No.: N/A
 Inventors: OKO et al.; Tel: 202/371-2600
 Title: PT32 Sperm Protein, Sperm c-Yes, Oocyte
 Cytoplasmic c-Yes, and Uses Thereof

14/15

FIG 9 - II



1669.0050001-100901

Appl. No. 09/864,291; Group Art Unit: To Be Assigned
 Dkt. No. 1669.0050001/JAG/EEF/RGM; Batch No.: N/A
 Inventors: OKO et al.; Tel: 202/371-2600
 Title: PT32 Sperm Protein, Sperm c-Yes, Oocyte
 Cytoplasmic c-Yes, and Uses Thereof

15/15

FIG 10

1 mgclkskedk gpamkyrtnd tpepissvvs hygsdssqat qspalkgsav nfnshsmtpf
 61 ggpsgmtptfg gasssfsavp spypstltgg vtvfvalydy earttddlsf kkgerfqiin
 121 ntegdwwear siatgktgyi psnyvapads iqaeewyfgk mgrkdaerll lnpqnqrglf
 181 lvresettkg ayslsirdwd evrgdnvkhk kirkldnggy yittraqfes lqklvkhyre
 241 hadglchklt tvcptvkpqt qglakdawe1 preslrlevk lgqgcfgeww mgtwngttkv
 301 aiktikpgtm mpeaflqeaq imkklrhdkl vplyavvsee piyivtefmt kgsllldflke
 361 gegkflklpq lvdmaaquad gmayiermny ihrdlraani lvgdnlvcki adfglarlie
 421 dneytarqga kfpikwtape aalygrftik sdvwsfgill telvtkgrvp ypgmavnrevl
 481 eqvergyrmp cpqgcpeslh elmklcwkkd pderptfeyl qsfledyfta tepqyqpqdn
 541 1 (SEQ ID NO:20)

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